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SYPHILIS.

A Report made to the Iowa State Medical Society, by Dr. W. F. Peck, of Davenport, Iowa, late House Surgeon, Bellevue and Blackwells Island Hospitals, New York.

HAVING been assigned by the Society to report on the surgical diseases of the organs of generation, I purpose considering, at some length, the disease which, above all others, most interests the physician and surgeon. Inasmuch as its consideration, in the strict surgical sense, would be, from necessity, incomplete, I design making use of a latitude best calculated to carry out the import and interest of the present paper, as well as elicit opinions, hitherto unexpressed, in this organization. In analyzing the subject of Syphilis, the time is not to be consumed in making researches into its historic origin and early insinuation into human society.*

What benefit does it confer on civilization to know whether Moses and the Israelites suffered from specific contagion, or whether the whites of America and the modern population of

* At the meeting, in 1866, I made a report considering, at length, the history of the disease.

the Old World received the disease from the American Indians, and by way of Kamtschatka?

The professional world has, with each succeeding century, advanced and retrograded with such strict parallel, that until within the second quarter of the 19th century, our apparent permanent improvement, in developing practical information relative to the diagnosis and treatment of Syphilis, has resulted in comparatively little benefit to those whose misfortune it is, and has been, to be tinctured and saturated with the most treacherous and destructive of poisons—*Syphilis*.

Recognizing, as has been done for many years, the division of specific ulcerative diseases of the generative organs into two classes—viz., Syphilis, by which I desire to be understood as meaning a local sore on the penis, or elsewhere, produced generally by sexual intercourse, and, at the same time, currently disseminating the specific poison throughout the entire system, by means of the circulating fluid, and sooner or later manifesting itself in the cutaneous-glandular membranous, ligamentous, and osseous systems, and syphilides, mites, or chancreoids, or a local ulcerative sore, the ravages of which are purely local only when the system secondarily suffers from the local ulcerative irritation. I design arranging the subject into these two general heads, and regard them as entirely separate and distinct from each other, yet, both being specific, and ordinarily received under similar circumstances, and in the same way. Syphilis is generally conceded to be communicated at the time of intercourse, and many have, and still continue to assert, teach, and practice, that the poison can only be communicated to a second person through an abrasion or ulceration of the tissues.

While I believe that the disease is often—I may say usually—communicated in this way, I also believe that it is often transferred from one person to another without even breaking continuity of tissue.

In an individual bearing a chancre, there is, at the same time, the latent poison circulating in the blood and secretions

of the body, all of which are taken from the blood immediately before their consummated preparation is known by a distinctive name.

It is by no means necessary that the individual should have a chancre at the time of communicating the poison.

I believe that a person who has never had the disease can receive it from a person who may have it, by actual contact in almost any form—through the semen—contact of the hands—contact of the body, as in sleeping—and, in fact, any position of the body which will permit a transfer of communicable poisons. If the poison of Syphilis is received into the blood, and, like the inexplicable leaven of the Pharisees, is disseminated throughout the system, why should not the secreted fluids, which are a separated part of the blood itself, contain some of the poison with which it has been associated in its earlier existence. No one at the present day doubts the hereditary history of Syphilis.

If the poison contained in the germinating fluid of the male be communicated to the female through the segmentation of the ovum, made so by the spermatozoa of the semen, why can not the semen, which remains for an indefinite length of time, in many cases, in contact with the absorbent vessels and cells of the vagina, be absorbed, or the poisonous leaven of the semen be absorbed, and thereby be made to come in contact with every living cell in the human economy.

It is not necessary at this time to attenuate on the absorptive capabilities of the skin and mucous membrane. Admitting that agents of atmospherical and chemical nature are admitted through these several tissues, why, I ask, in the same connection, can not the unanalyzed and mysterious poison of Syphilis be introduced or admitted into the system through the same avenues?

It may be asked, can a male who has not Syphilis receive it from a female who has the disease in its secondary form, without receiving it through tissue broken by the specific poison? There is always a natural secretion in the uterus and vagina, and generally there is in woman what may be termed

a hypersecretion, from the cells there located. If the blood from which the fluid is separated contains the poison, as before remarked, why should not the *Glandulæ Tysmii* absorb or take from the fluid the poison, without abrading the tissue? And, just at this juncture, I desire to state that I believe that a chancre can be produced by a person who only has the disease in the second and last form.

In doing so, the tissue cells are worked excessively by the irritating or poisonous fluid, and in thus laboring, the walls may be broken in some of them, and the adjoining cells, in exerting themselves in the effort to repair, in succession break down, and the result is, an ulcer or chancre, specific in character. In the summer of 1866, a gentleman applied to me for treatment of ulcerative disease of the glans-penis and prepuce. I found several ulcers on the different parts of the organ mentioned, and accompanying them there was badly strictured phymosis. The phymosis was so complete, that I could not obtain a good view of the multiple ulcerations.

The diseases were all removed and remedied by circumcision. No difficulty intervened to hinder an uninterrupted recovery.

About two months subsequent to the operation, a lichenous eruption appeared on the face, arms, and back. I immediately placed the patient on specific treatment, when the local evidence disappeared; but within twelve weeks, I was called to treat the wife of the gentleman, whose age was 30. She had never had offspring. She first complained of sore throat, and soon after, the face was the seat of a specific acneated eruption.

The system became exhausted, and, as a consequence, a state of morbid nervousness was prominent. Ulceration appeared in the nose, and soon after some fifteen ulcers appeared on the inferior extremities. Under suitable management, the signs and symptoms subsided, and she is now apparently well. No sore of any kind ever existed on the genital organs. Upon minute inquiry, I found that no preventative was employed by either party to avoid pregnancy.

Intercourse was rather often, and the seminal fluid remained within the vaginal cavity. She had more or less leucorrhœa, caused, I believe, by the irritating presence of the male fluid. Both patients are still under my professional care.

CASE II.—In 1863, Mr. B—— had an ulceration on the glans-penis, which occurred some ten days after intercourse with a woman whom he believed to be healthy in every respect. He was treated a short time, and discharged cured. In 1865, he applied to me for advice in relation to his wife's condition, which was as follows. She had had an eruption, I should think from the description given, of psoriasis, which lasted for several months, when neuralgia became an almost constant trouble. She also had iritis and ulceration of the throat, followed in a few months by periostitis of both tibial membranes. She had never had an ulceration of any kind on the organs of generation. I requested an examination of the husband, and found on the left tibia a node which had given him a good deal of nightly trouble, but thinking it was benign rheumatism, he used simple remedies, all of which afforded him no relief.

I have treated both husband and wife, and they are now apparently free from specific disease. They have one child, five years of age, and perfectly healthy. Upon inquiry, I found that no precaution is, or ever has been used to guard against pregnancy. Intercourse averages once in five days, and the seminal fluid remains unremoved from the vagina. From the above cases, together with the vast amount of accumulative testimony on record, I am well satisfied that an abrasion of the surface is not necessary to transfer the poison of Syphilis from a first to a second party. All of the effects of *Aconite* and *Belladonna* can be produced by causing them to come in contact with the absorbent vessels, and still more authentic record has proved, that although a long time might elapse, yet the virus would eventually act on a healthy skin, after having, of course, completely sodden the epithelial covering.

Babbington, the commentator of Hunter's written opinions

says, "The character of the primitive venereal affection is *essentially* an induration *passing* afterwards into an ulceration." Does this argue less than absorption first, with breaking down of cell tissue after the system at large has been contaminated? Hunter himself entertained this opinion, but owing to a want of distinctive practical proof, he refused to introduce his belief into the form of a general histological law. Diday gives a case in his memoirs, where a syphilitic infant was introduced into a small village to be nursed by a wet-nurse who received the disease, and afterwards was the means of propagating it to a considerable number of the town population. Dr. Bargioni, an Italian physician, who was so sceptical in his belief in science, could not receive any other opinion than that entertained and taught by Ricord and Europe, years ago, and, willing to give practical demonstration of his belief, he suffered the blood to be taken from a woman who had the disease in its secondary form, and inoculated into his own system. In four days all signs of the inoculation were gone. After a few days, he noticed an itching, and, on looking at the arm, there was observed a round papule of a red color, but no induration around it. The papule gradually increased, and in eight days was of some size, and covered with a silvery scale. Eleven days after its first appearance, two glands in the axilla became enlarged. On the sixteenth day, these glands were larger, and upon removing the papule, a small quantity of serosity was found beneath, but no induration around it. On the eighteenth day, there was an ulcerated surface, with a crust on it, and a certain amount of hardness at its borders. On the twenty-third day, it was larger and harder, as were also the glands. A month after the first appearance of the papule, he had nocturnal pains in the head, and observed some enlargement of the cervical glands. A week after this, a roseolous rash appeared on the body and spread all over him, leaving no doubt of its nature. In another week, the sore was not disposed to heal, and the glands were larger. The rash then

became copper-colored. Remedies were then given, and the sore commenced to heal.

If medical men are averse to these opinions, why are they so particular in making inquiry after pure and healthy vaccine matter. I might go on multiplying evidence, but I think already sufficient has been adduced to confirm what I set out to prove.

Chancroids—or—in order to consider the specific malady, Mild Syphilis—I will term it Syphilides Mites, although I scientifically consider them entirely separate and distinct diseases. Chancroids are generally received at the time of intercourse, and the ravages are always local until the irritation has provoked an exhausted system, which may induce the attendant to regard the disease as Syphilis. There are no stated or constant descriptive symptoms which can be relied upon at all times. Those careful writers and observers who see in chancres invariably the circular, even-cut, half-split-pea excavation, with circumscribed indurated base, see in the chancroidal ulcer an irregular, ragged, superficial ulceration, with a disposition to spread or extend its area of surface rapidly, and no tendency to respect geometrical angles or circles. The fluid—the result of all disintegration—is of a grayish, yellowish color, and usually abundant in quantity, and wherever it may chance to be deposited it manifests the same creative tendency, and where in Syphilis the ordinary disposition is to form but one ulcer, in chancroidal disease the tendency is always to exhibit multiple characters.

If the system of a patient bearing a chancre, or multiple chancre as sometimes happens, becomes depraved and exhausted, the same disposition to wander, ravage and destroy may be seen; but these conditions are far less frequent than they are in specific disease denominated chancroids. The eruption, iritis, falling of the hair, pharyngitis, ulceration of the throat, including vocal chords, mucous and osseous ulceration of the nose, periostitis, and ulceration of soft tissues in all parts of the body, and, lastly, caries and necrosis of the bones

are almost always confined to, and symptoms of, Syphilis proper.

Hereditary Syphilis is a disease too little studied, and, consequently, too little understood by the medical profession.

How far in a pregnant woman the structures connected, with the nourishment of the foetus in utero may suffer from the effects of Syphilis has not yet been determined with scientific accuracy.

The still-births and abortions by women affected by this disease are too common to receive extended notice. But in these instances the cause is in the foetus itself; it is diseased, dies, and is thrown off. But miscarriages are by no means infrequent in tainted women, even when the foetus itself shows no signs of disease. In such cases it has been satisfactorily shown that the placenta has been the seat of specific deposit. Children who are born with Syphilis are recognized by their impoverished look and morbid condition of the tegumentary system. When the disease is not prominent at birth a roseolous eruption, sometimes lichenous, appears, accompanied by ulceration in the mouth, and very often snuffles, together with condylomata, and sometimes the eyes exhibit a marked evidence of the systemic taint. Under treatment, and often without, these cases get well within a year, and the wise parties are satisfied that the disease has been cured. But sooner or later the poison re-presents itself, and the patient shows a puny, ill-developed constitution, and is constantly troubled with some disorder of the organization.

Interstitial keralitis and deafness and, later, organic renal disease are prominent. What surgeon can recognize the greatest of human ills in the infant or youth and not sympathize sadly as he reads the prophetic edict in the countenance of the innocent. "The sins of the fathers shall be visited upon the children, even unto the third and fourth generation."

With an understanding knowledge of Syphilis, the most important of all questions is that of treatment.

TREATMENT.—I treat all ulcerations of the penis specific in character with the most active escharotics. Fuming *Nitric*

acid and *Bromine* are favorite medicines, and when properly used supply the demand better than any other agents that I have ever employed.

In chancroids I cauterize the ulcer to *cure* the disease, and also to prevent its being communicated to a second person.

In chancres I cauterize the ulcer to prevent the disease being communicated to a second party, not because I entertain an idea that the progress of the disease in the person bearing the chancre can be arrested by any kind of local treatment.

Whenever the chancre assumes a serpiginous or gangrenous ulceration, I apply precisely the same course adopted in treating chancroids. In both diseases, when the specific character of the ulcers is destroyed, I apply to the surface an ointment composed of equal parts of *Bals. Peru* and *Spermaceti Ointment*, which is immediately covered with a fine quality of oakum, better calculated than any local absorbent to facilitate the healing process of granulating ulcers. Lint, and all other applications of a similar nature, are far inferior in my practice to oakum.

Daily applications of the ointment and oakum will generally suffice. But should the patient be convenient, twice a day, immediately after the cauterizing, will be better. This method of treatment in chancroids is peculiarly adapted. Should the ulcers not heal readily, and should the granulations manifest a sluggish disposition, a daily syringing with the following will usually modify the action of the ulcer and assist materially in establishing a healthy process:

R						
Glycerin,	-	-	-	-	-	℥i
Creosote,	-	-	-	-	-	℥i
Tr. Myrrh,	-	-	-	-	-	℥i M.

Put two drachms in two ounces of water, and syringe the parts thoroughly immediately before dressing.

While this preparation furnishes ample disinfecting properties, it also operates admirably in multiplying healthy cells.

In employing the local plan sketched, the wants or necessities of the system at large are by no means to be overlooked or neglected. Beef and mutton in substance and fluid extracts are to be especially administered. Stale bread, milk and potatoes are also to be used daily. He who allows an abstemious diet to enter into his treatment will suffer a want of corresponding success. Daily baths containing a small amount of *Sulphuric acid*, are both grateful and valuable. Whenever the granulations manifest a very active disposition, use a little *Nitrate of silver*, as often as indications require, immediately within the line of circumference, until new integument forms the future cicatrix. I am not of the opinion that *Calomel*, as a local application, in chancres, is of any more value as a healing remedy than *Bismuth* or *Magnesia*. Almost anything that will absorb and remove the irritable secretion will aid the formation of new tissue. In my hands *Tannin* acts admirably as a dry remedy.

The time for commencing internal treatment in Syphilis is agreed upon by all observers to be when the disease is recognized. Notwithstanding my practical and observatorial experience in this disease, I am very often, and I might say too often, at a loss to discriminate between Chancroids and Syphilis, as presented on the penis. And, rather than inflict upon my patient a course of *Mercury* and other depletant remedies unnecessarily, I wait until the skin osseous or mucous tissues give me information positive as to the location of the disease in the circulating fluid. I am aware that this course of management will be criticized. But calm, reflective consideration should be used in analyzing the disease, together with its development, and it ought to appear evident that it is better to wait only a little longer and be certain that the disease exists, than to act on false or uncertain supposition, and thereby provoke incalculable injury.

I do not desire to be understood as saying that the effects or results of medicine used in treating Syphilis are, or can be, as injurious as the poison itself. In my opinion, no other

poison or disease can be compared to Syphilis in its ravages and devastating process.

Legitimately, Syphilis has but two stages, although writers and commentators arrange it under three stages, viz.:

The first to include the disease from the time the poison is received up to the time it shows systemic development.

The second and last—from the time it shows systemic development up to the time it terminates either in death or recovery.

When I am perfectly satisfied that the penis augurs Syphilis, I immediately commence internal treatment.

Mercurial ointment, with occasional small doses of *Calomel*, is, and has been, in my hands, by far the best remedy. It does not derange the digestive organs and thereby deprive the surgeon of an all-important adjuvant in treatment.

The effects of the medicine are almost as quickly produced as when remedies are given internally. At the same time, *Mercury* can best be controlled in form of administration. I direct it to be used in the axilla, groin, and popliteal space alternately, on opposite sides, and as often as the condition of the patient demands it.

When it is not convenient to use the ointment, I use *Proto-iodide of mercury* pills. But when the remedy is to be continued for a long time, I use the *Corrosive chloride of mercury*. In the last part of the second stage, I find no remedy that will supply the place of *Iodide of potassium*.

I give, however, much larger doses than is usually recommended. Often the *Potassium* will so accelerate the action of the glandular system as to bring or send out the eruption more profusely. When it does, disregard the solicitations of the patient, and the eruption will disappear much sooner under the *Potassium* than it will under the *Mercury*. Never fail to keep a watchful eye on the digestive system—good food and plenty of it must always be insisted upon. A healthy or active digestive system will assist very materially in neutralizing and throwing off the poison.

I have tried vapor-baths, but all plans of treatment are

secondary in my hands to that described and advised. Whenever any of the glands give evidence of the formation of matter, let it out. Syphilitic glands rarely suppurate. Sympathetic bubos are common. Sometimes *Iodine* has a discutive influence, but less frequently than is believed. A saturated solution of *Nitrate of silver* will usually remove satches or ulcerations of the mucous membrane.

I have no confidence in the plan of Boeck. In 1862, I witnessed, in Blackwells Island Hospital, a series of unsuccessful experiments with syphilization, by Dr. J. E. Taylor. I never grant a final discharge to my patient in a less time than one year, and sometimes a much longer period is necessary to cure the disease.

I hope, from time to time, to review this interesting subject in the deliberations of this organization.

PATHOLOGICAL PHYSIOLOGY.

THE CONTINUOUS VENOUS MURMURS IN THE NECK.

Clinical Lectures delivered at the Hospital "La Charitè," by M. Monneret, Professor of Clinical Medicine to the Faculty of Medicine, Paris.

TRANSLATED EXPRESSLY FOR THE JOURNAL, BY WALTER HAY, M.D.,
CHICAGO.

(Continued from page 13.)

I COME now to the most important consideration of all in the question which we are now studying; I refer to the composition of the blood. I made numerous experiments upon this subject in 1847.

It is manifest that, of two liquids, advancing with equal rapidity, flowing at the same inclination, starting from the same height, and subjected to the same pressure, the one which produces the most intense sound is that which wets the most thoroughly the walls of the tube enclosing it. If a

mixture of water and alcohol be used, the most intense sound and the most beautiful modulations are produced. The same effects are obtained with a solution of table salt or of carbonate of soda. If, on the contrary, the experiment is made with viscous, thick or ropy liquids, which flow silently, and whose molecules adhere together, scarcely any sound is obtained. Such is the result of experiments performed with pure milk, with a mixture of milk and water, with oil, or with a decoction of marshmallow. I have been enabled to use these liquids in large quantity, and to experiment, in a complete manner, in the public hospitals.

Mercury, which does not moisten, rolls also without sound; but it must be added that *Mercury* exists under peculiar conditions. According to physicists, it does not possess the properties of liquids, and should be put completely out of the question. I have never produced vibrations with *Mercury*, whatever may have been the height of its fall. All those liquids which moisten thoroughly, flow more rapidly than those which moisten imperfectly.

It is always the velocity of the liquid which produces the continuous sounds and the swells, continuous and intermittent murmurs. Such is the conclusion necessarily reached, whether the liquid be permitted to flow, or be forced mechanically; and even, I do not hesitate to say — although this word has offended some very sensitive persons — with a syringe.

Others may jest about experiments, which are somewhat rude, it is true; but when these experiments reproduce with perfect exactness the phenomena announced by such as Savart and Cagnard-Latour, it is then time to be serious, and to assert physical laws, which are superior to these feeble attacks.

The experiments which M. Parrot thought it necessary to attribute to M. Chauveau, I had already made in 1847.

In 1833, Laharpe (de Lausanne) investigated the influence of liquids upon the production of sounds, and arrived at results identical with those I have exhibited to you.

M. Parrot has therefore misquoted. If I notice this error, it is simply in order to establish a fact which is often observed

in the incomplete historical researches, which each one presents in his own manner.

I have never thought of claiming priority in investigations which have been for a long time already public property.

After what has gone before, I hope, gentlemen, that you can not cherish any doubt about the influence of the composition of liquids upon the production of sounds. If you apply what I have said to the sanguineous liquid, you perceive that, when this liquid is modified in such a manner as to become more fluid, to wet the walls of the vessel, and to flow more easily, the vascular murmur of the neck appears, it is on the right that you find it; you know to what anatomical causes this is due in part. Two conditions suffice to produce it; the one is constant — this is the aponeurotic arrangement; the other is variable — this is the composition of the blood. Nature, in order to arrive at her ends, has no need to multiply mechanisms; it is sufficient to add to them some modifications. It belongs to the physician to apply vital laws to physical objects.

Thus, the material arrangement does not suffice to originate a murmur, notwithstanding the cause is always persistent. A still further modification is necessary, which should cause the phenomena to reappear every time the appearance of a vascular sound, of the nature of those we are studying, is established; and it can be determined that the blood is altered in its composition. It is useless to analyze them; others have done it before us, and with such precision that we can not refute their evidence.

What I say of the venous murmurs, I say also of the vibratile thrill; for they can not be separated, the one from the other. They appear together — 1st, when the blood is diminished in quantity; 2nd, when it has lost a part of its most essential element — that is to say, when there is a diminution of the globules. The globules seem indeed to render the blood more viscous, and to give it the property of rolling silently in the vessels. Its velocity then is not so great, and it becomes impossible to produce a sound in the veins, in the

normal condition; but if the quantity of the globules falls from 127 to 100, and even still lower to 90, 80, or even to 75, the blood acquires a great quantity of serum, and becomes more aqueous; the diminution of globules is thus compensated by the augmentation of the water, as Andral and Gavarret have demonstrated. In their analyses, the serum is perceived to ascend to 790, 800, or 900, in the 1000. It is to this greater fluidity, that is due the venous murmur. When it is carried to its maximum, it is a true tidal murmur that is heard. It is at times so intense that it has occurred to me, on three different occasions, to hear it at a distance. Imagine how powerful must be a sonorous vibration, in order to pass from the liquid where it is at first produced, into the air, then from this fluid to the ear, with which it is put in unison by the intermediation of the air.

To conclude, then, I assert that each time a bellows murmur is heard, it may be certainly diagnosed; with Andral and Gavarret, that the blood has no longer its normal composition; and that its globules have fallen to 80 or 90. I recognize in this diagnostic sign, one of the most beautiful applications of physical and chemical facts to practical medicine.

The blood, modified as to its quantity, ought to produce likewise the same result. Previous to the labors of Andral and Gavarret, this diminution in the quantity of the blood in anæmia was admitted; it is only since that period, that a diminution in the number of globules merely has been recognized. In spite of the numerous experiments of physiologists, we do not know the quantity of liquid blood contained in the organism; but by considering the smallness of the veins in the anæmia, the decolorized condition of the blood obtained by puncture, and the inconsiderable quantity which is found after death in the sick person who dies, it becomes necessary to ask if there be not a real diminution in the mass of the blood. I am inclined to believe that it is so, in spite of the high authority of Andral. This is not an easy question; for, in this case, the blood would flow with a velocity so much greater, as it would, at the same time, less abundant and less dense.

The bellows-murmur may announce also the diminution of a third element; this element is the albumen, diminishes in a manner protopathic or deuteropathic. When the alteration of the solids forbids the formation of this element, or entails its immediate elimination, the murmur of anæmia becomes apparent. This alteration of the solids exists, for example, in a disease of the kidneys, which removes from the blood its albumen, or of every other organ whose derangements react upon the general health, and forbid the formation of albumen. Moreover, the albumen is perceived to diminish, and to produce the same effect, when blood is lost in large quantity, as in important wounds, in severe parturitions. There is in all these cases, a disappearance of a large portion of the essential elements of the blood, the albumen and the globules; the blood then moistens more thoroughly the walls of the vessels, as in deglobulization. There is perceived, also, according to the old opinions, the diminution of the other elements of the blood, the fibrin and the fatty matters, under the influence of imperfect nutrition, as Bright, Christison, Andral, and others, have perceived. And this is not all — there is still a loss of the inorganic principles, the different salts, the protein bodies, or extractives; in such cases, the murmur becomes the most intense.

If, now, we examine the first causes of anæmia and its murmur, we shall enter upon the study of disease which I designate under the name of inanition. By this is to be understood, not only loss of nutritive matter by reason of deficiency of aliment; there is inanition when the nutrition is impaired by any cause whatever — for example, the altered nervous system prevents the stomach assimilable, for a still stronger reason when the stomach is itself altered, when it is the seat of a cancer or of an ulceration which impedes its functions.

In these cases, there is inanition because the sick person can not recruit his blood with the requisite quantity of necessary material.

Anæmia is, moreover, the result of many other diseases.

It is sufficient that the liver be diseased, in order that the elements essential to the organism be not renewed; the globules then diminish. Biliary calculi, cirrhosis, whatever it be, primitive or consecutive — acepalocysts, even, which at first do not appear able to affect it much; in a word, all that which disturbs the functions of organs, produces anæmia. Amongst such invalids, even when this malady is not suspected, it is necessary to seek for the vibratile thrill and the venous murmur.

You will find them with such intensity that you can not be doubtful. It might be said, for the rest, that every slow and chronic lesion of an organ manifests its development by anæmia.

The spleen is often the source of it, without any doubt. Among leucæmic subjects, who have in their blood two, or even four, white to one red globule, the venous murmurs appear from the commencement, and put the observer upon the track of the malady, before he has even had recourse to percussion. You see, then, how important is the examination of these murmurs; and I have not yet said all, for it is not in general disease, which has for its result a rapid alteration of the blood, that this alteration of the blood becomes often one of the most essential elements of diagnosis.

The alteration of the blood is a constitutional effect of different poisons. In order that the liquid should remain in its natural state, it is necessary that the different principles which flow into it, should not be susceptible of alteration.

It is thus that a subject who does not appear sick, and who comes to consult us about a trifling discomfort, is already profoundly affected. You determine in his case, anæmia; you interrogate him with care, and he informs you that he is a house-painter; you conclude that his blood is altered, perhaps that digestion is not perfectly performed, perhaps that absorption has introduced a poison into his system — the contact of the lead has sufficed to modify his blood, to disturb all the functions of the organism, some feebly, others to a high degree; and, without making an analysis of the blood, you

affirm the fact with certainty. Subsequently, if there is need of it, an analysis of the blood will demonstrate to you that the globules have diminished in quantity. I cite lead; but any other poison happens to produce the same effect, by attacking the blood globules, and either by destroying them or by preventing their formation.

Pellagra, Ergotism, which are poisons frequently mortal, alter the blood, and develop anæmia rapidly, in the same manner. Is it necessary to cite to you all the maladies with which you are abundantly familiar, and which are followed by the same effect? I will only specify the rheumatic and gouty diatheses, etc., cancer, and tubercle. It is sufficient that a subject should have the diathesis, in order that, a long time — perhaps ten years — before the least external manifestation appears, he becomes anæmic. A young girl is a prey to the tubercular diathesis, and she may have still the appearance of health; she is only chlorotic. Two years, four years pass, and you commence to suspect a condition more grave. You auscultate with care, and you find the signs of nascent tuberculation; the origin of this evil is with the parents; the diathesis was in its embryonic state, and only exhibited itself by the alteration of the blood.

It is certain that the opinions which we express will meet with determined opposition, because they are associated with thoughts of sadness, and because they touch the heart in its tenderest emotions; but this is a conviction, and I am compelled to declare that the subject has been struck fatally, from its birth, by the diathesis.

These sad thoughts have the merit of making the observer more attentive, and of permitting him to commence the treatment at the moment when he can still rely upon the efficacy of hygiene. Such is its true progress. If a diathesis can determine anæmia in an individual, from the beginning, what will it be when it shall have broken out in all its vigor, and when it shall have developed itself with all its manifestations? The invalid will then become anæmic with a promptness such as will approximate to the state of an individual who has lost

blood, or in whom one of the larger veins has been divided. Two or three days of an acute disease will have accomplished a result at which a chronic disease would have arrived only after a very long time.

Now, there is a sure method of ascertaining the effects produced by this malady upon the entire organism; and I am acquainted with none of them which can determine the venous murmurs so rapidly and so surely as one of these general diseases.

One word, now, upon the subject of the bellows murmur which is met with in an arterio-venous aneurism. This aneurism gives origin, indeed, as surgeons have determined, to the two phenomena which we have studied — to the continuous bellows murmur, duplicated with an intermittent blowing, and to the vibratile thrill. The explanations furnished by authors, of the origin of these murmurs, are scarcely in harmony with the principles adopted by physicists.

When it has been said that this murmur is due to the vibration of the perforated membrane intermediate to the two vessels, and that the passage of the blood from the artery into the veins, suffices to explain the continuous murmur — a greater rapidity of the current during the diastole, explaining also the swell — there has been given an explanation of the phenomenon which is not correct. This explanation is a complete contradiction in physics.

In the memoir which I presented to the Surgical Society in 1852, I sought to demonstrate the true causes of this murmur. There can be, in the transit through the vessel, but two simultaneous sounds, or a single one, a continuous and an intermittent sound.

There can be a continuous sound, only, in a vessel through which the blood passes with sufficient rapidity, and in a continuous manner. This blood ought, as the experiments of physicists has demonstrated, to accomplish a certain distance, to run through a certain space, in order to generate a vibration. These conditions exist in the veins near the heart; the flow of blood into the arteries is remittent; every one knows that

it is subjected to two influences — the systole of the heart, and the tension of the artery ; but the murmur is heard only during the cardiac systole, the continuous flow not being sufficiently strong to produce a second : the first one is therefore intermittent.

Thus the blood flows silently during the arterial systole ; it flows with a certain murmur during the arterial diastole, because then the range is sufficient. Now, Scarpa has demonstrated that arterial blood can not enter into a vein without arterIALIZING it. It results from this that the vein becomes rigid, and that the blood flows in this vessel of a larger diameter, with thicker walls, and always distended, in a continuous manner. It is the artery which gives out the intermittent sound, and the vein which affords the continuous ; these two vessels are found united in the arterio-venous aneurism, and hence the reason why there is heard a continuous-remittent bellows murmur. The intermittent sound is engrafted upon the continuous, as the artery is upon the arterIALIZED vein altered in its walls.

This is clear, and it is not necessary to go to seek in the walls of membranes, vibrations which do not exist, as M. Broca has done, who appears to me to have announced a false theory of the arterio-venous murmur.

I will not give you a longer description of the vibratile thrill, and of the continuous venous murmurs. You have heard these phenomena, and you have studied them in the sick. Moreover, I must dwell upon the operative proceedings which enable them to be recognized. It is not, however, always easy to perceive them clearly, especially if one has not taken care beforehand to place the head of the subject in a suitable position.

Remember the arrangement of the aponeuroses of the neck, and the intimate relations which they sustain to the veins of the region. The costo-pericardiac ligament, as has been noticed by MM. Lannelongue and Ledentio, maintains these vessels in contact with the superior bony rim of the thorax ; it prevents its sinking, and preserves a free and easy passage to

the blood which runs through them; it subserves a purely passive purpose. The omo-hyoid aponeurosis, or middle layer, on the contrary, an active part; it is extended, under the influence of the contraction of the scapulo-hyoid — or better still, by the extension of the head; and under the influence of this tension, the vascular walls are kept apart, and thus the circulation is accelerated.

The action of the superficial aponeurosis, relative to the external jugular, is similar. You should, then, in the first place, endeavor to stretch these membranes; and you will affect it easily by turning the head upon the opposite side, and elevating it sufficiently to elongate the muscles of the neck. The subject should be placed in the horizontal position; the erect is bad. If it is desired to observe the vibratile thrill, or the blowing, in all their intensity, the pulp of the finger or the stethoscope should be placed immediately above the right clavicle. Take care, also, in the different examinations made, that the stethoscope is exactly applied. Only very light pressure should be made, and the pulp of the finger should just graze the skin a little, in order to perceive the vibratile thrill. If the compression is too strong, no result will be attained. I will not dwell upon all the details upon which I might still enter. Remember, however, that the vascular signs, even when sought with care, are sometimes difficult to recognize, and are very mobile. They constitute, at the least, two valuable symptoms, which permit the diagnosis of a general disease in its incipency, and enable it to be studied in its rudimentary state.

It is by similar evidences that we shall be at some time enabled to attain to a recognition of the alterations in the blood, the existence of diathesis, and also to arrest in time the progress of disease by an appropriate hygiene.

We could thus suspect, at an early period, the existence of those organic modifications which, at a later date, we are powerless to arrest.

We can not cure diatheses — we can oppose to them only palliatives. Some day, perhaps, recognized early, we shall be enabled to suspend their evolution.

DELIRIUM TREMENS.

BY P. S. MACDONALD, M. D., CHICAGO, ILL.

In requesting a place in your valuable journal for the insertion of the following case of *delirium tremens*, I do so, not that I can add any thing new to the category of remedial agents recommended in this disease, or enlarge upon the therapeutic value of those I employed; but, being one of no little interest to myself, and from the fact that it was unusually obstinate to the influence of medical treatment, I thought that a brief description of the case might not prove uninteresting to some of your readers, more especially those who had lately entered as co-laborers into the great field of medical practice.

The patient, James Y.; *æt.* 48; by employment a laborer, and a Canadian by birth, had been for some years addicted to drink, and had during that time been on two previous occasions attacked with *delirium tremens*. On the afternoon of September 11th, I was first requested to see him. His wife informed me that a well-known homœopathist of this city had been in attendance on the patient for some time previous to my being called in, and that she had faithfully administered to her unfortunate husband his *pellets* and *dilutions* without any visible effect or benefit.

On examining the patient I found the leading, well-marked symptoms of *delirium tremens*; pulse soft and compressible, beating 95; tongue moist and covered with a thick, creamy fur; pupils normal; gastritis; urine scant and highly colored; much tremor of the hands, and when the tongue was protruded its tremulous condition also gave evidence of the excited state of the nervous system; his bowels operating every few minutes. Expressing my surprise at the rate in which he was discharging the contents of his bowels, his wife at once threw some light on the matter, by acknowledging

that she thought if she could but get the bad whisky cleaned out of him he might get well, and, basing her treatment on the diagnosis she had made, gave him, the day previous, nearly the contents of a box of purgative pills; but the "scouring" did the patient no good—on the contrary, he was worse. I learned at the same time that sleep had not visited his eyes for three nights and four days. In this state of affairs I ordered cold applications to the head, sinapisms to the epigastrium, fomentation of poppy leaves to the abdomen, an enema of beef tea, with *Oleum terebinthinæ* gtt. x., and *Tr. Opii* gtt. xxx., to be given every hour, requesting the *Tr. Opii* to be discontinued in twelve hours, if no tendency to sleep presented itself.

September 12th, 8 A. M.—Found him more restless; no inclination to sleep; pupils contracted; stomach still intolerant to all kinds of liquids and food; his bowels had evacuated but twice since my previous visit; tongue moist and coated with a whitish fur; pulse about 100, weak and compressible; skin clammy; gave the following prescription:

R.—Sub. Nit. Bismuth, - - - grs. xxv.

Fiat chart, No. X. One to be given every hour, in small quantities of milk punch and beef tea, ordering at the same time a continuation of the enema, but omitting the *Opii*, deeming it unsafe to push the narcotic further, but in its place added *Tr. Assafoetida*, ζ i. Gave an unfavorable prognosis.

September 12th, 7 P. M.—No tendency to sleep; pupils much contracted and eyes injected; his mind constantly employed upon those delusions so common in these cases; tremor of hands and tongue increased; pulse rapid and weak; no dejections from the bowels for the last thirteen hours; the urine voided small in quantity and deeply colored; skin clammy, with a copious perspiration; stomach tolerant of small quantities of beef tea and milk punch. Prescribed as follows:

R.—Bromide Potass., - - - - - 3 i.

Aqua Distil., - - - - - 3 iij.

Mix. S.—Give a teaspoonful every half hour, requesting a continuation of the enemas of beef tea.

September 13th, 9 A. M.—Still no sleep, and no indications of any; pulse 115, weak and thready; pupils greatly contracted; hands and lower extremities cold and clammy; head and thorax warm; tongue moist and furred; had two evacuations from the bowels since my last visit, and voided his urine twice in the same space of time. I must confess that I was disappointed in not finding the *Bromid. potass.* to have any effect in allaying the excited condition of the nervous system. But the failure ought properly to be attributable to the small quantity of the remedy taken, only four doses, as it could not be continued on account of the irritable condition of the stomach. At this time the general appearance of the patient indicated an approach to collapse, requested warmth to be applied to the lower extremities; an enema of beef tea every hour, to which was added a tablespoonful of brandy; also twenty drops of chloroform every two hours, in some mucilaginous drink, cautioning the nurse to cease giving the latter as soon as any inclination to sleep presented itself.

September 13th, 8 P. M.—On calling at this hour to see the patient, I was grateful to find many of the obnoxious symptoms, if not entirely gone, were much mitigated, and the patient expressed himself as being much better, if he could but sleep; determined that it should be obtained—I resolved to give the anæsthetic more freely, and to remain with the patient and watch the result; I then gave him one teaspoonful of *Choloroform* in *Glycerine*. In a brief period the effect of this dose was perceptible by a lessened frequency and increased force of the heart's action, and in thirty minutes the harassed and prostrated individual sank into a refreshing slumber, from which he did not awaken for five hours.

September 14th, 8 A. M.—Found the patient this morning much improved, with every indication of convalescence, except that an acute pain in the ball of the left eye, and over the superciliary ridge annoyed him considerably. Ordered

cold applications over the seat of pain, which gave temporary relief. Sustaining treatment continued.

September 15th, 8 A. M.—Had a tolerable night's rest; left eye much injected; complains of a sharp, lancinating pain in the organ, with diminished power of vision in the right eye. Cold application, as before, gave transitory relief. Ordered the liberal use of *Quinia* and *Iron* for several days. Under this treatment he convalesced gradually, and would have been able to follow his usual occupation, had not *Iritis* developed itself in the left eye, for which he is now under treatment. The patient asserts that prior to his last attack he never experienced any defect of vision or pain in either of his eyes, and never contracted *Syphilis* or *Gonorrhæa*.

RELATIONS EXISTING BETWEEN THE SENSE OF TOUCH, THE SENSE OF TEMPERATURE, AND THE SENSE OF PAIN.

BY JAMES T. NEWMAN, M. D.

ON the 10th of July, 1867, a very singular case came under my observation. Nancy, a negro woman, applied to me for treatment. Upon inquiry into her history, I found that she had been suffering with Hypertrophy of the Heart and persistent Bronchitis. From exposure to cold she became paralyzed, though without loss of consciousness, or deviation of the tongue, when that organ was protruded. The entire right half of the body, including the head, became insensible to pain and to temperature, but there was no loss of motor power. The muscular power, in fact, as measured by the dynamometer, being greatly increased on the affected side. She could feel the slightest touch on the anæsthetized side, and when the eyes were closed she could discover and pick up a pin from the floor. On washing the hands she could distinctly perceive the shock and movement of the water

flowing over them, but was quite unable to distinguish whether it was hot or cold. In winter she could only perceive the temperature with the left half of the body, and the same when standing near the fire. The normal temperature of the skin on the affected side differed so slight as scarcely to be perceptible. But what is more remarkable, neither the pricks of needles nor pinching of the skin could be felt in the least. She suffered from Neuralgia, in the temporal region, at night. In consultation with Dr. C. F. Hart, he advised me to use the galvanic battery; but prior to using the battery I gave the following prescription for the neuralgic pains:

R.—Quin. Sulph., - - - - - gr. xxx.

Hyoscyami, ext., - - - - - gr. xxx.

M. and ft. pil. x., divi. part. decem. S.—Take one night and morning.

Upon the exhibition of this medicine I am happy to say she had no more pains. I then commenced to treat her with electricity. I followed up the use of the battery about two months, and, to my great astonishment, she has recovered the use of her limbs, and the sense of feeling is just as good, apparently, as it ever was.

CORRESPONDENCE.

PHILADELPHIA, *January 11th*, 1868.

Editor Chicago Medical Journal:

In my last letter I gave you an account of an ovarian cyst, operated on by Prof. Wallace, in which he drew off the fluid and injected a solution of *Iodine*. The cyst did not seem to become filled with any fluid for four weeks, when it again commenced to enlarge, and it now has, apparently, about four pints in it, which quantity has been in it for about four weeks.

It has not, therefore, resulted in a *cure*, but it is certain that, thus far, very great relief has been afforded. I now proceed with my series of cases by giving you an account of

Mrs. A.; *æ*t. 39. Presented herself at the clinic, with a tumor involving the parotid gland. An incision was made in the form of the letter S. Several small arteries were ligated; the tumor was divested of skin and superficial fascia, and the tumor wrung out with the hand. It involved the entire gland. The external carotid was ligated, and the portio-dura nerve was cut, which will of course produce paralysis of that side of the face. After a few hours the edges of wound were brought together and retained by several interrupted sutures, and a wedge-shaped compress applied. Patient was given a full opiate, and she rested well during the night. The wound was carefully dressed, and healed rapidly; she afterwards presenting herself at the clinic with the wound entirely healed, but with paralysis of right side of face. On examination by the microscope, the tumor was found to be made up of cancer cells.

Francis H.; *æ*t. 9. *Case of Ectropia*. Had an abscess in the orbicularis muscle, which was punctured. In addition to this there were four ulcers about the eye, making it a complicated case. A V shaped piece of the conjunctiva was cut out, and the tarsal portion of the lid. The cellular tissue being adherent to the orbit, was loosened, and the attachments were all divided and broken up. The parts were now nicely brought together by delicate thread, and the hair-lip suture. Three weeks subsequently he presented himself with the lid very nearly perfect.

The following case presented itself to Prof. Wallace's "Obstetrical Clinic:"

Mrs. Fanny G.; *æ*t. 42. Mother of two children. First noticed her womb "was down" four months ago, when it felt "very sore;" says she "often pushed it up." Examination shows prolapsus of vagina, with procidentia of uterus; a large sloughing ulcer covers the whole os and lips. The perineum has been ruptured, making the recto-vaginal bridge

very limited, and the mouth of vagina very large, admitting with ease a large-sized fist. For three successive examinations, the ulcer was touched freely with *Arg. nit.*, and the uterus replaced, and Monsell's Solution freely applied over surface of vaginal walls, and then a colpeurynter introduced. This was dispensed with now, and the old cicatrized surfaces of the lacerated perineum were freshened with scissors, and then brought together nicely with quilled sutures. After this there was no infiltration of urine and no unpleasant symptom. She was afterwards shown to the class, her perineum firm and entire, and the uterus in good position, with ulcer healed.

Yours, truly, E. R. H.

CHICAGO, December, 1867.

Editor Chicago Medical Journal:

B. A., a mulatto girl, came to my office, to be examined. Stout, heavy build, and about 22 years of age.

She stated that she suffered excruciating pains through the bowels, down the inner part of the thighs, to the foot. When one of her paroxysms would come on, which occurred every few minutes, there would be, almost simultaneously with it, a congestion of the saphenous veins; they would become so turgid that one might easily be led to believe it to be phlebitis. This would last probably from three to five minutes, and then disappear almost as suddenly as it had appeared. During the congestion of these veins, she complained of great pain, burning of the vulva and clitoris. This condition of things, I learned had been the case for six or eight months. The nates were so tender that she could not sit, with any degree of comfort, even on a soft seat; and then, only for a few minutes. The menses had been suppressed for eight months, during which time the bowels had been constipated, so much so that there was no action of them, except by artificial means. Leucorrhœa had been very profuse, with headache and loss of appetite. In micturition, the pain was

almost unendurable—represented by her as if there was something obstructing the flow of urine, and feeling as if the parts were on fire. She said she had been under the treatment of several physicians, but they had given her neither relief nor satisfaction, as to what was the matter with her, or if she could be relieved.

Upon an examination, I found the parts much inflamed, tumefied and hot; the clitoris from two to two and a half inches in length, and quite as large as a man's thumb, very red, dry, hot, and obstructing the entrance to the vagina so that it was difficult to introduce even the finger. I tried several times to effect an introduction of the speculum; but the parts were so tender, and the clitoris so long and large, that it was impossible.

She was directed to use a wash three times a day, composed of *Cupri sulphat.* 3 j., to *Aquæ puræ*, Oj.; then dry the parts well with a soft towel or cloth, and dust with powdered starch. For the constipation and suppression, she was directed *Aloes soc.*, grs. xx.; extract *Nux vomica*, grs. v.; make in pills, xx. S. one morning, noon and night; and go to stool every morning, at a certain hour, whether there was a desire to defecate or not.

I have never seen the case since but once, and then only to meet her on the street; but have learned, through others, that the treatment succeeded well. She commenced improving from the time she first used the wash; the pains all left; there was a rapid restoration of the clitoris to its normal condition and size; the bowels soon became regular, and the menstrual flow was reëstablished; also her general health.

JAMES T. NEWMAN, M.D.

SHEBOYGAN FALLS, WIS., December 20th, 1867.

Editor Chicago Medical Journal:

I am requested by the Medical Association of this county, to inform you that a Medical Society was organized August

19th, 1867, entitled the Sheboygan County Medical Association. Its officers are as follows:

President, Dr. Louis Bock, of Sheboygan; Vice President, Dr. H. J. Young, of Sheboygan Falls; Recording Secretary, Almon Clarke, of Sheboygan Falls; Corresponding Secretary, W. B. Huson, of Sheboygan Falls; Treasurer, A. F. St. Sure, of Sheboygan. Censors, Henry Bodensstab, of Howard's Grove; J. N. O'Brien, of Plymouth; W. B. Huson, of Sheboygan Falls.

Its remaining members are: L. D. McIntosh, of Sheboygan; Fred. Hahn, of Sheboygan; W. D. Morehouse, of Plymouth; G. B. Shepard, of Sheboygan Falls; and J. J. Brown, of Sheboygan.

Yours very truly,

W. B. HUSON, Cor. Sec'y.

EDITORIAL.

EDITORIAL.—Several articles crowded out of this number by pressure of other matter.

BACK NOS. WANTED.—Owing to the large increase in our subscription list, although it was supposed a sufficient number of copies had been provided, we are entirely out of copies of the JOURNAL for the months of JANUARY, JUNE, SEPTEMBER, OCTOBER, and NOVEMBER, 1867, Vol. XXIV. We will pay twenty-five cents each for copies of either of these, in cash or by credit on the present volume, as desired. Will our friends who do not file their numbers oblige us by responding?

OVARIOTOMY.—It is somewhat noteworthy that in the cases of abdominal section we read or hear of, the successful ones are those which skilled and intelligent practitioners have given a grave prognosis upon—the unsuccessful have been those in which all have agreed that, if ever, all circumstances favored the operation. The presumed (or assumed) skill of the operator seems to have little to do with the result. The

secret of this discrepancy would appear to be coming out in this wise: *The greater the departure of the peritoneum from its normal condition, the less the danger of interfering with it.* It will hence occur that the *adhesions* so much written and talked about, involving loss of mobility of the tumor; long continuance of pressure; frequent resort to paracentesis, etc., so far from discouraging the operation are rather promotive of confidence in its success. Should this idea become general, it would relieve the professional mind of extreme anxiety, and at the same time give confidence in the employment of measures for temporary relief. Paracentesis is not as dangerous as the long section — meanwhile the patient may be kept in a condition of comparative comfort for years. (We know, personally, of one case, which was tapped at gradually decreasing intervals for over *seventeen* years.) And then the operation may be attempted, as a *dernier resort*, with even better hopes of successful issue.

L O O T.

Dr. Wayne Griswold recommends (*Western Journal of Medicine*) in *Scarlatina* *Quinine*, *Iron*, and *Chlorate of potash*, with good nourishment, as the central measures of treatment. He prefers warm ablutions to cold, and gives for drink lemonade, ice water, or milk. Locally, to the throat:

R.—Tinct. Ferri Chlor., - - - - 3 iij.

Potassæ Chlorat, - - - - 3j.

Aq. Distill., - - - - 3 iij.

M. Apply them three times a day.

The same mixture, internally, in doses of a teaspoonful or more every four hours, alternating with moderate doses of *Quinine*. Free ventilation is insisted upon. For the Sequelæ

he advises: Free doses of *Jalap* and *Hyd. cu. cret.*, followed by *Bitart. potash*, with half a teaspoonful of the following mixture every four hours:

R.—Fl. ext. uva ursi,	-	-	-	-	3 vij.
Fl. ext. digitalis,	-	-	-	-	3j.
Sp. nit. dul.,	-	-	-	-	3j.

M. Also warm ablutions.

On removal of the œdema and increase of urine., *Quinia* and *Iron* to be given in tonic doses.

A New York correspondent of the same journal writes: "At the New York Hospital and in Bellevue, the *hypodermic injection of Quinia* is used quite extensively in the treatment of Intermittent Fever and Malarial Neuralgia. At the former institution, the formula used is as follows: Take of *Sulphate of quinia*, 60 grs.; *Dilute sulphuric acid*, 40 minims; *Distilled water*, 1 fluid ounce. Mix. Make a solution, and filter with the greatest care. Thirty-five minims are equal to 4 grains of *Quinia*. Or the solution may be varied by the addition of 4 or 6 grs. of *Sulphate of morphia*. This combination renders the injection less painful." At Bellevue, an ethereal solution of *Quinia* is used, of the strength of 1 grain to 2 minims. The process of preparation is quite elaborate, and it is difficult to see where it possesses especial advantages over that of the New York Hospital, as, indeed, it is difficult to see where that possesses any real advantages over the usual methods of administration of the remedy, except in so far as it may enlist the expectant faith of the patient, which is always of great use to the physician. This latter may overcome the patient's alarm and annoyance—and subsequent liability to abscesses or erysipelas.

Beef soup, broths, or jellies, may be preserved from turning sour in the sick room, or elsewhere, by stirring in a few drops of the solution of *Bi-sulphite of lime*. This will not impair their taste in the least.